

Corrector Prototype Beamline Test Planning and Status

June 29, 2007 1:00 pm

Craig Drennan

Introduction:

We are planning to do a pre-shutdown installation and full power test of a new corrector package into the booster. This would test not only the corrector package but all of the other associated power supplies and controls.

We hope to have everything in place by July 13, 2007.

The minutes of the previous meetings can be found in the AD Document Database as Beams-doc-2792.

Please send any additions or corrections to these minutes to cdrennan@fnal.gov.

Those in attendance:

Craig Drennan, Joel Misek, Joel Fulgham

Next Meeting: July 6, 2007, 1:00 pm in the Penthouse West Booster Tower

33. We now have the 480 VAC to 480/277 VAC transformer for powering the West Tower racks. This will allow us to power the bulk power supply for the magnet switch mode power supplies from a welding outlet. The final installation will not use this transformer. For the final installation we will require a Booster wide power outage to hook into the 480 VAC in the panel.
34. The cable pull for the corrector magnet power cables is expected to be done on a four hour "Controlled Access" using two controlled access qualified Booster persons as escorts. It will be helpful to have the electricians Rad Worker Qualified. The cables are labeled and mounted on rollers ready to go. The shutdown work request has been submitted. A shutdown is expected in the early part of next week.
35. Dave Augustines crew will receive a corrector package from the Tech Division on Monday, July 2. They will be fitting a BPM assembly into this corrector, making adjustments and welding the braces to the BPM that anchor the BPM to the corrector package. Jim Fitzgerald will be involved with this to be sure that there is still space for the BPM cables to be connected properly.
36. Once the corrector / BPM package is a complete assembly AD/Mech Support will be putting the package onto the temporary stand for the prototype installation with the adjustment plate. They will look for proper fit and operation of the adjustment plate.
37. ***Surveyors will be invited out to have a look at the corrector package assembly once it is together.***
38. The BPM, flange and bellows assembly will be leak checked.

39. We hope to have items 35. through 38. above completed by the end of next week. We will then be ready to complete the necessary tasks downstairs and will submit a Shutdown work order to get the corrector installed into the Booster at Long 4.
40. In order to complete the prototype installation we will need a second 8 hour shutdown between July 9 and July 13 to accomplish the following tasks:
- a. Put in place a corrector package on a temporary stand with the final adjustment plate, to the side of the Booster beam line.
 - b. Connection of the corrector package into the beam line / Booster vacuum
 - c. Connect the magnet power cables to the corrector package.
 - d. Connect the corrector to the LCW cooling water.
 - e. Connect the BPM to the existing signal cables at Period 4.
 - f. Perform an alignment using the new adjustment plate and corrector alignment fixtures.
41. Joel Fulgham came to the meeting to discuss the task durations for the prototype installation for the sake of assembling an ALARA plan. Joel got the estimates he needed from Joel Misek and has been in contact with others.

Components we will need for the test. June 29, 2007

- ☒ Corrector Package.
Available
- ☐ Beam Position Monitor with bellows and flanges (fabricated in-house)
Current Estimate: July 6, 2007
- ☒ Corrector stand with adjustment plate assembly
Current Estimate: Available
- ☒ Power cables for magnets (including cable for Klixon)
Available
- ☒ Cable tray for West Tower
Available
- ☒ AC power disconnects, conduit, power strips, etc.
Available
- ☐ Power transformer and panel board for final AC hook-up.
Current Estimate: July 3, 2007
- ☒ Components needed for the LCW connection.
Available
- ☐ 4 each 40 Amp Switch Mode Power Supplies.
Current Estimate: June 29, 2007
- ☐ 1 each 65 Amp Switch Mode Power Supply.
Current Estimate: June 29, 2007
- ☐ 1 each 2 Amp Switch Mode Power Supply.
Current Estimate: July 9, 2007
- ☐ Bulk power supply built in rack.
Current Estimate: July 9, 2007
- ☐ HRM Chassis and VME Crate and modules installed with ACNET Devices
Current Estimate: June 22, 2007
- ☒ CAMAC Crate and crate controller installed in rack.
Current Estimate: Available
- ☒ Six C473 Ramp Cards installed with ACNET devices assigned.
Current Estimate: Available
- ☒ Local cable assemblies for power supply control and status.
Current Estimate: Available